

Name \_\_\_\_\_

Date \_\_\_\_\_

## **Summer Assignment – Entering Pre-Algebra**

### **Directions—**

**This summer packet has been designed to help your transition into this mathematics course and help us assess your strengths and weaknesses. The questions included in the packet are among those that we would consider to be “pre-requisite” for students entering this course. Because it would be of benefit to you to determine how much you remembered (and how much you forgot) after a number of weeks away from a math course, the Mathematics Department requests that you do not work on this packet until the beginning of August.**

**While there may be a couple of questions that present a struggle, please feel free to get assistance from a textbook or from an individual that can help, but only after you have attempted the problem on your own to the best of your abilities. Do not worry too much if there are a couple of questions that give you problems. Do your best and work hard. Please show all work on the packet and attach any extra scrap paper to the packet.**

**The packet may be graded or a test or quiz may be given on the material covered in the packet. Please bring the completed packet with you on the first day of school, and it will be collected on the second day.**

**Good luck. See you in September.**

**Mr. Blau and Ms. Cassidy**

For problems # 1-12, perform the appropriate operation and simplify your answer.

1.)  $17.2 + 248.83$

2.)  $792 - 18.37$

3.)  $31.07 \cdot 4.2$

4.)  $10.062 \div 4.3$

5.)  $1\frac{1}{4} + 2\frac{1}{3}$

6.)  $12\frac{9}{10} - 11\frac{3}{4}$

$$7.) 1\frac{1}{5} \cdot 2\frac{2}{3}$$

$$8.) 10\frac{1}{3} \div 3\frac{1}{5}$$

$$9.) -4.9 + 7.6$$

$$10.) -7 - (-14.6)$$

$$11.) -14 \cdot 34$$

$$12.) -164 \div (-4)$$

For problems # 13-18, solve for the given variable:

13.)  $k - 16 = 28$

14.)  $7p = 217$

15.)  $\frac{n}{6} = 122$

16.)  $17 + z = 53$

17.)  $36x - 25 = 155$

18.)  $72 = \frac{p}{3} + 3$

19.) What is 12% of 50?

20.) 140% of what number is 35?

21.) 75 is what percent of 250?

22.) Solve  $\frac{19}{20} = \frac{n}{10}$  for  $n$

23.) Solve  $\frac{40}{n} = \frac{5}{9}$  for  $n$

24.) Find the perimeter of a pentagon with sides of length 6 cm, 4 cm, 7.3 cm, 9 cm, and 2.8 cm.

25.) Find the circumference of a circle with a diameter of 21 m. Use  $\pi = \frac{22}{7}$

26.) Find the area of a rectangle with a base of 14 mm and a height of 26 mm.

27.) Find the area of a triangle with a base of 3.5 m and a height of 2.6 m.

28.) Find the area of a circle with a radius of 8 cm. Use  $\pi = 3.14$

29.) Find the surface area of a box whose length is 8 m, height is 3 m, and width is 2 m.

30.) Find the volume of the solid in problem # 29.

31.) Find the surface area of a sphere with diameter of 18 km. Leave your answer in terms of  $\pi$ .

32.) Find the volume of a cone whose base has a diameter of 60 cm, and whose height is 40 cm.

For problems # 33-37, perform the appropriate operation(s) and simplify.

33.)  $17 - (-12.1)$

34.)  $-15 + (-23)$

35.)  $(-2) \cdot (-8)$

36.)  $5 + (4 - 1)^2 - 6^2$

37.)  $7^2 - 6^2 \div 2 + (-11)$

38.) Solve  $2\frac{1}{3} \times 7\frac{2}{5}$  as a mixed number in its simplest form.

39.) Solve  $28 \div 1.6 = x$  , rounding your answer to the nearest tenth.

40.) Solve  $(21.2) \cdot (-0.5) = x$  , rounding your answer to the nearest tenth.